FEMS Microbiology Letters

AUTHOR INDEX VOLUME 92

Abarca, D., see Claros, M.G. (92) 57
Al-Aoukaty, A., Appanna, V.D. and Falter, H.
Gallium toxicity and adaptation in *Pseudomonas fluorescens* (92) 265
Anwar, H., Strap, J.L. and Costerton, J.W.
Susceptibility of biofilm cells of *Pseudomonas aeruginosa* to bactericidal actions of whole blood and serum (92) 235
Appanna, V.D., see Al-Aoukaty, A. (92) 265
Ayouba, A., Martin, D. and Rougé, P.
Recognition of muramic acid and *N*-acetylmuramic acid by Leguminosae lectins: possible role in plant-bacteria interactions (92) 41

Best, L.C., see Robson, G.D. (92) 247
Bhat, U.R., see Utley, S.R. (92) 211
Birkbeck, T.H., see Gallacher, S. (92) 101
Boller, T., see Müller, J. (92) 151
Bonomo, R.A., Currie-McCumber, C. and Shlaes, D.M.
OHIO-1 β-lactamase resistant to mechanism-based inactivators (92) 79
Borchert, S., Patil, S.S. and Marahiel, M.A.
Identification of putative multifunctional peptide synthetase genes using highly conserved oligonucleotide sequences derived from known synthetases (92) 175
Britz, T.J., see Riedel, K.-H.J. (92) 69
Broers, C.A.M., Stumm, C.K. and Vogels, G.D.
Monoxenic cultivation of the anaerobic amoeboflagellate *Psalteriomonas lanterna* and isolation of the methanogenic endosymbiont (92) 115
Byrd, W., see Utley, S.R. (92) 211

Cazzulo, J.J., see Nowicki, C. (92) 119
Cinco, M.
Selection of a *Borrelia burgdorferi* antigenic variant by cultivation in the presence of increasing amounts of homologous immune serum (92) 15
Claros, M.G., Del Pozo, L., Abarca, D. and Jiménez, A.
The promoter element GTACAAG of the *SGA* and *STA2* genes is a possible target site for repression by the *STA10* gene product from *Saccharomyces cerevisiae* (92) 57
Costerton, J.W., see Anwar, H. (92) 235
Crameri, R., see Jaton-Ogay, K. (92) 163
Currie-McCumber, C., see Bonomo, R.A. (92) 79

Delgado, M.A. and Gancedo, C.
Mapping of the *PCK1* gene encoding phosphoenolpyruvate carboxykinase on chromosome XI of *Saccharomyces cerevisiae* (92) 125
Del Pozo, L., see Claros, M.G. (92) 57
Discotto, L., see Handwerger, S. (92) 11
Douglas, C.W.I., Heath, J. and Gwynn, J.P.
Enzymic activity of salivary amylase when bound to the surface of oral streptococci (92) 193
Dubus, A., see Jacobs, C. (92) 95
Duschak, V., see Nowicki, C. (92) 119

Etienne, J., see Lina, B. (92) 133

Falchetto, R., see Jaton-Ogay, K. (92) 163
Falter, H., see Al-Aoukaty, A. (92) 265
Fatih, A., see Jaton-Ogay, K. (92) 163
Fleurette, J., see Lina, B. (92) 133
Fortier, J., see Moineau, S. (92) 169
Fortnagel, P., see Hansen, C. (92) 35
Frère, J.-M., see Jacobs, C. (92) 95
Frithz, E., see Jeppson, H. (92) 139
Frot-Coutaz, J., see Mérit, X. (92) 259
Fukushima, K., see Takizawa, K. (92) 129

Gaastra, W., see Ter Huurne, A.A.H.M. (92) 109
Gallacher, S. and Birkbeck, T.H.
A tissue culture assay for direct detection of sodium channel blocking toxins in bacterial culture supernates (92) 101
Gancedo, C., see Delgado, M.A. (92) 125
Gilkes, N.R., see Miller, P.B. (92) 199
Got, R., see Mérit, X. (92) 259
Gwynn, J.P., see Douglas, C.W.I. (92) 193

Hackett, J., see Waterman, S.R. (92) 279
Handwerger, S., Discotto, L., Thanassi, J. and Pucci, M.J.
Insertional inactivation of a gene which controls expression of vancomycin resistance on plasmid pHKK100 (92) 11
Hansen, C., Fortnagel, P. and Wittich, R.-M.
Initial reactions in the mineralization of 2-sulfobenzoate by *Pseudomonas* sp. RW611 (92) 35
Heath, J., see Douglas, C.W.I. (92) 193
Hedén, L.-O., see Jeppson, H. (92) 139
Hernández, R., see Hernández-Rivas, R. (92) 63
Hernández-Rivas, R., Martínez-Calvillo, S., Romero, M. and Hernández, R.
Trypanosoma cruzi 5S rRNA genes: molecular cloning, structure and chromosomal organization (92) 63
Hodson, M.E., see Taylor, R.F.H. (92) 243
Hollocher, T.C., see Jones, A.M. (92) 205
Honda, T., see Yoh, M. (92) 157
Hughes, M.N., see Savvaidis, I. (92) 181

Jacobs, C., Dubus, A., Monnaie, D., Normark, S. and Frère, J.-M.
Mutation of serine residue 318 in the class C β-lactamase of *Enterobacter cloacae* 908R (92) 95
Jaton-Ogay, K., Suter, M., Crameri, R., Falchetto, R., Fatih, A. and Monod, M.
Nucleotide sequence of a genomic and a cDNA clone encoding an extracellular alkaline protease of *Aspergillus fumigatus* (92) 163
Jeppson, H., Frithz, E. and Hedén, L.-O.
Duplication of a DNA sequence homologous to genes for immunoglobulin receptors and M proteins in *Streptococcus pyogenes* (92) 139
Jiménez, A., see Claros, M.G. (92) 57
Jones, A.M., Hollocher, T.C. and Knowles, R.
Nitrous oxide reductase of *Flexibacter canadensis*: a unique membrane-bound enzyme (92) 205
Jürgens, U.J., Simonin, P. and Rohmer, M.
Localization and distribution of hopanoids in membrane systems of the cyanobacterium *Synechocystis* PCC 6714 (92) 285

Kadis, S., see Utley, S.R. (92) 211
Kajiwara, S. and Shishido, K.
Characterization of the promoter region of the basidiomycete *Lentinus edodes Le.ras* gene (92) 147
Kato, H., see Watanabe, K.-i. (92) 47
Kawanami, M., see Watanabe, K.-i. (92) 47
Kilburn, D.G., see Miller, P.B. (92) 199
Knowles, R., see Jones, A.M. (92) 205
Kreiswirth, B., see Lina, B. (92) 133
Kremer, S.M. and Wood, P.M.
Continuous monitoring of cellulose oxidation by cellobiose oxidase from *Phanerochaete chrysosporium* (92) 187
Kusters, J.G., see Ter Huurne, A.A.H.M. (92) 109

Labia, R., see Petit, A. (92) 89
Lee, H.
Reversible inactivation of D-xylose utilization by D-glucose in the pentose-fermenting yeast *Pachysolen tannophilus* (92) 1
Lee, Y.-C., Ohta, T. and Matsuzawa, H.
A non-covalent NH_2-terminal pro-region aids the production of active aqualysin I (a thermophilic protease) without the COOH-terminal pro-sequence in *Escherichia coli* (92) 73
Létoublon, R., see Mérit, X. (92) 259
Lina, B., Vandenesch, F., Etienne, J., Kreiswirth, B. and Fleurette, J.
Comparison of coagulase-negative staphylococci by pulsed-field gel electrophoresis (92) 133
Lu, Y., Shevtchenko, T.N. and Paulus, H.
Fine-structure mapping of *cis*-acting control sites in the *lysC* operon of *Bacillus subtilis* (92) 23

Maebayashi, Y., see Takizawa, K. (92) 129
Mansch, R. and Sand, W.
Acid-stable cytochromes in ferrous ion oxidizing cell-free preparations from *Thiobacillus ferrooxidans* (92) 83
Mantle, P.G., see Penn, J. (92) 229
Marahiel, M.A., see Borchert, S. (92) 175
Martin, D., see Ayouba, A. (92) 41
Martínez-Calvillo, S., see Hernández-Rivas, R. (92) 63
Massidda, O., Montanari, M.P. and Varaldo, P.E.
Evidence for a methicillin-hydrolysing β-lactamase in *Staphylococcus aureus* strains with borderline susceptibility to this drug (92) 223
Matsuzawa, H., see Lee, Y.-C. (92) 73
McBride, B.C., see Park, Y. (92) 273
McMillin, D.E. and Muldrow, L.L.
Typing of toxic strains of *Clostridium difficile* using DNA fingerprints generated with arbitrary polymerase chain reaction primers (92) 5
Mérit, X., Frot-Coutaz, J., Got, R. and Létoublon, R.
Aspergillus niger G proteins: subcellular localization (92) 259
Miller, Jr., R.C., see Miller, P.B. (92) 199
Miller, P.B., Shen, H., Gilkes, N.R., Kilburn, D.G., Miller, Jr., R.C., Plaut, A.G. and Warren, R.A.J.
Endoglucanase A from *Cellulomonas fimi* in which the hinge sequence of human IgA1 is substituted for the linker connecting its two domains is hydrolyzed by IgA proteases from *Neisseria gonorrhoeae* (92) 199
Ming-Shan, Q., Yoshikura, H. and Watanabe, H.
Virulence phenotypes of *Shigella flexneri* 2a avirulent mutant 24570 can be complemented by the plasmid-coded positive regulator *virF* gene (92) 217
Miwatani, T., see Yoh, M. (92) 157
Miyaji, M., see Takizawa, K. (92) 129
Moineau, S., Fortier, J. and Pandian, S.
Direct detection of lactococcal bacteriophages in cheese whey using DNA probes (92) 169
Monnaie, D., see Jacobs, C. (92) 95
Monod, M., see Jaton-Ogay, K. (92) 163
Montanari, M.P., see Massidda, O. (92) 223
Montemartini, M., see Nowicki, C. (92) 119
Muir, S., see Ter Huurne, A.A.H.M. (92) 109
Muldrow, L.L., see McMillin, D.E. (92) 5
Müller, J., Westenberg, B., Boller, T. and Wiemken, A.
Synthesis and degradation of polyphosphate in the fission yeast *Schizosaccharomyces pombe*: mutations in phosphatase genes do not affect polyphosphate metabolism (92) 151

Nishi, T., see Yagi, T. (92) 289
Nishimura, K., see Takizawa, K. (92) 129
Nogami, A., see Yagi, T. (92) 289
Normark, S., see Jacobs, C. (92) 95
Nowicki, C., Montemartini, M., Duschak, V., Santomé, J.A. and Cazzulo, J.J.
Presence and subcellular localization of tyrosine aminotransferase and *p*-hydroxyphenyllactate dehydrogenase in epimastigotes of *Trypanosoma cruzi* (92) 119

Ohta, T., see Lee, Y.-C. (92) 73
Okada, K., see Takizawa, K. (92) 129
Ozeki, M., see Watanabe, K.-i. (92) 47

Pandian, S., see Moineau, S. (92) 169
Park, Y. and McBride, B.C.
Cloning of a *Porphyromonas* (*Bacteroides*) *gingivalis* protease gene and characterization of its product (92) 273
Patil, S.S., see Borchert, S. (92) 175
Paulus, H., see Lu, Y. (92) 23
Penn, J., Purcell, M. and Mantle, P.G.
Biosynthesis of glyantrypine by *Aspergillus clavatus* (92) 229
Petit, A., Yaghlane-Bouslama, H.B., Sofer, L. and Labia, R.
Does high level production of SHV-type penicillinase confer resistance to ceftazidime in Enterobacteriaceae? (92) 89
Pitt, T.L., see Taylor, R.F.H. (92) 243
Plaut, A.G., see Miller, P.B. (92) 199
Poole, R.K., see Savvaidis, I. (92) 181
Pucci, M.J., see Handwerger, S. (92) 11
Purcell, M., see Penn, J. (92) 229

Riedel, K.-H.J., Wingfield, B.D. and Britz, T.J.
Combined influence of magnesium concentration and polymerase chain reaction specificity enhancers (92) 69
Robson, G.D., Best, L.C., Wiebe, M.G. and Trinci, A.P.J.
Choline transport in *Fusarium graminearum* A 3/5 (92) 247
Rohmer, M., see Jürgens, U.J. (92) 285
Rokem, J.S., see Schön, A. (92) 19
Romero, M., see Hernández-Rivas, R. (92) 63
Rougé, P., see Ayouba, A. (92) 41

Sand, W., see Mansch, R. (92) 83
Santomé, J.A., see Nowicki, C. (92) 119
Savvaidis, I., Hughes, M.N. and Poole, R.K.
Differential pulse polarography: a method of directly measuring uptake of metal ions by live bacteria without separation of biomass and medium (92) 181
Schön, A. and Rokem, J.S.
Misaminoacylation and tRNA-dependent transamidation in *Streptomyces coelicolor* A3(2) (92) 19
Shen, H., see Miller, P.B. (92) 199
Shevtchenko, T.N., see Lu, Y. (92) 23
Shishido, K., see Kajiwara, S. (92) 147
Shlaes, D.M., see Bonomo, R.A. (92) 79
Sideso, O., see Smith, K.E. (92) 29
Simonin, P., see Jürgens, U.J. (92) 285
Smith, K.E., Williams, R.A.D. and Sideso, O.
Transformation of progesterone by a thermophilic bacillus (92) 29
Sofer, L., see Petit, A. (92) 89
Sprey, B. and Uelker, A.
Isolation and properties of a low molecular mass endoglucanase from *Trichoderma reesei* (92) 253
Strap, J.L., see Anwar, H. (92) 235
Stumm, C.K., see Broers, C.A.M. (92) 115
Suter, M., see Jaton-Ogay, K. (92) 163

Takasawa, T., see Watanabe, K.-i. (92) 47
Takizawa, K., Fukushima, K., Maebayashi, Y., Okada, K., Nishimura, K. and Miyaji, M.
Isolation and structural elucidation of a dihydroubiquinone-9 from the fungus *Aureobasidium pullulans* (92) 129
Taylor, R.F.H., Hodson, M.E. and Pitt, T.L.
Auxotrophy of *Pseudomonas aeruginosa* in cystic fibrosis (92) 243
Ter Huurne, A.A.H.M., Van Houten, M., Muir, S., Kusters, J.G., Van der Zeijst, B.A.M. and Gaastra, W.
Inactivation of a *Serpula (Treponema) hyodysenteriae* hemolysin gene by homologous recombination: importance of this hemolysin in pathogenesis of *S. hyodysenteriae* in mice (92) 109
Thanassi, J., see Handwerger, S. (92) 11
Trinci, A.P.J., see Robson, G.D. (92) 247

Uelker, A., see Sprey, B. (92) 253
Utley, S.R., Bhat, U.R., Byrd, W. and Kadis, S.
Characterization of lipopolysaccharides from four *Pasteurella haemolytica* serotype strains: evidence for presence of sialic acid in serotypes 1 and 5 (92) 211

Vandenesch, F., see Lina, B. (92) 133
Van der Zeijst, B.A.M., see Ter Huurne, A.A.H.M. (92) 109
Van Houten, M., see Ter Huurne, A.A.H.M. (92) 109
Varaldo, P.E., see Massidda, O. (92) 223
Vogels, G.D., see Broers, C.A.M. (92) 115

Warren, R.A.J., see Miller, P.B. (92) 199
Watanabe, H., see Ming-Shan, Q. (92) 217
Watanabe, K.-i., Takasawa, T., Yoshimura, F., Ozeki, M., Kawanami, M. and Kato, H.
Molecular cloning and expression of a major surface protein (the 75-kDa protein) of *Porphyromonas (Bacteroides) gingivalis* in *Escherichia coli* (92) 47
Waterman, S.R. and Hackett, J.
Outer membrane components of *Campylobacter hyointestinalis* (92) 279
Westenberg, B., see Müller, J. (92) 151
Wiebe, M.G., see Robson, G.D. (92) 247
Wiemken, A., see Müller, J. (92) 151
Williams, R.A.D., see Smith, K.E. (92) 29
Wingfield, B.D., see Riedel, K.-H.J. (92) 69
Wittich, R.-M., see Hansen, C. (92) 35
Wood, P.M., see Kremer, S.M. (92) 187

Yaghlane-Bouslama, H.B., see Petit, A. (92) 89
Yagi, T., Nogami, A. and Nishi, T.
Salt tolerance and glycerol accumulation of a respiration-deficient mutant isolated from the petite-negative, salt-tolerant yeast *Zygosaccharomyces rouxii* (92) 289
Yoh, M., Miwatani, T. and Honda, T.
Comparison of *Vibrio parahaemolyticus* hemolysin (Vp-TRH) produced by environmental and clinical isolates (92) 157
Yoshikura, H., see Ming-Shan, Q. (92) 217
Yoshimura, F., see Watanabe, K.-i. (92) 47

FEMS Microbiology Letters

SUBJECT INDEX VOLUME 92

aecA
Aspartokinase II; Lysine biosynthesis; Control of amino acid biosynthesis; *Bacillus subtilis* (Lu, Y. (92) 23)

Acidophile
Thiobacillus ferrooxidans; Ferrous ion oxidation; Cytochrome; Rusticyanin (Mansch, R. (92) 83)

Alkaline protease (EC 3.4.1.14)
Aspergillus fumigatus; Protease; DNA sequence; Secretion; Gene, *alp* (Jaton-Ogay, K. (92) 163)

Alkaloid
Aspergillus clavatus; Glyantrypine; Anthranilic acid (Penn, J. (92) 229)

Amidotransferase
Mischarging; Glutamyl-tRNA synthetase; Protein synthesis; *Streptomyces*; tRNA (Schön, A. (92) 19)

Amylase
Streptococci; Saliva; Starch (Douglas, C.W.I. (92) 193)

Anthranilic acid
Aspergillus clavatus; Glyantrypine; Alkaloid (Penn, J. (92) 229)

Antigenic variant
Borrelia burgdorferi (Cinco, M. (92) 15)

Aqualysin I
Thermus protease; Prosequence function; Folding of pro-enzyme; Molecular chaperon (Lee, Y.-C. (92) 73)

Aspartokinase II
aecA; Lysine biosynthesis; Control of amino acid biosynthesis; *Bacillus subtilis* (Lu, Y. (92) 23)

Aspergillus clavatus
Glyantrypine; Anthranilic acid; Alkaloid (Penn, J. (92) 229)

Aspergillus fumigatus
Protease; DNA sequence; Secretion; Alkaline protease (EC 3.4.1.14); Gene, *alp* (Jaton-Ogay, K. (92) 163)

Aspergillus niger
G protein; Subcellular fractionation (Mérit, X. (92) 259)

Aureobasidium pullulans
Dihydroubiquinone-9 (Takizawa, K. (92) 129)

Auxotrophy
Pseudomonas aeruginosa; Cystic fibrosis (Taylor, R.F.H. (92) 243)

Avicel
Cellobiose oxidase; Cellulose; *Phanerochaete chrysosporium* (Kremer, S.M. (92) 187)

Bacillus subtilis
aecA; Aspartokinase II; Lysine biosynthesis; Control of amino acid biosynthesis (Lu, Y. (92) 23)

Peptide synthetase; Domain structure; Core-sequence; Oligonucleotide; Surfactin (Borchert, S. (92) 175)

Bacteroides gingivalis
Porphyromonas bacteroides; Periodontopathogen; Major surface protein; Gene cloning; Gene expression; Expression vector system (Watanabe, K.-i. (92) 47)

Biofilm
Pseudomonas aeruginosa; Chemostat; Serum sensitivity (Anwar, H. (92) 235)

Biosorption
Pseudomonas; Copper; Cadmium; Zinc; Nickel (Savvaidis, I. (92) 181)

β-lactamase inhibitor resistance
OHIO-1 β-lactamase; Clavulanic acid; Sulbactam; Tazobactam (Bonomo, R.A. (92) 79)

Borderline susceptibility
Staphylococcus aureus; Penicillinase-resistant penicillin (PRP); β-Lactamase (Massidda, O. (92) 223)

Borrelia burgdorferi
Antigenic variant (Cinco, M. (92) 15)

Cadmium
Biosorption; *Pseudomonas*; Copper; Zinc; Nickel (Savvaidis, I. (92) 181)

Campylobacter hyointestinalis
Outer membrane; Protein; Lipopolysaccharide (Waterman, S.R. (92) 279)

Ceftazidime
SHV-type penicillinase; Enterobacteriaceae; Hyperproduction (Petit, A. (92) 89)

Cellobiose oxidase
Avicel; Cellulose; *Phanerochaete chrysosporium* (Kremer, S.M. (92) 187)

Cellulase
Linker sequence; IgA1 hinge; IgA protease; *Cellulomonas fimi*; *Neisseria gonorrhoeae* (Miller, P.B. (92) 199)

Cellulomonas fimi
Cellulase; Linker sequence; IgA1 hinge; IgA protease; *Neisseria gonorrhoeae* (Miller, P.B. (92) 199)

Cellulose
Avicel; Cellobiose oxidase; *Phanerochaete chrysosporium* (Kremer, S.M. (92) 187)

Cell wall
Cyanobacterium; Hopanoid; Outer membrane; *Synechocystis*; Thylakoid membrane (Jürgens, U.J. (92) 285)

Cheese
Lactococcus; Phage; Probe; Whey (Moineau, S. (92) 169)

Chemostat
Pseudomonas aeruginosa; Biofilm; Serum sensitivity (Anwar, H. (92) 235)

Choline transport
Fungal morphology; *Fusarium graminearum* (Robson, G.D. (92) 247)

Chromosomal organization
Trypanosoma cruzi; 5S Ribosomal RNA; Gene sequence (Hernández-Rivas, R. (92) 63)

Chromosome XI
Gene *PCK1*; PEP carboxykinase; *Saccharomyces cerevisiae* (Delgado, M.A. (92) 125)

Clavulanic acid
OHIO-1 β-lactamase; Sulbactam; Tazobactam; β-lactamase inhibitor resistance (Bonomo, R.A. (92) 79)

***meta*-Cleavage**
2-Sulfobenzoate mineralization; Desulfonation; 2,3-Dihydroxybenzoate; *Pseudomonas* sp. RW611 (Hansen, C. (92) 35)

Cloning
Porphyromonas gingivalis; Protease (Park, Y. (92) 273)

Clostridium difficile
Polymerase chain reaction; Pseudomembranous colitis; Typing (McMillin, D.E. (92) 5)

Colony variant
Shigella virulence; *virF*-positive regulator; Virulence plasmid; DNA alteration (Ming-Shan, Q. (92) 217)

Control of amino acid biosynthesis
aecA; Aspartokinase II; Lysine biosynthesis; *Bacillus subtilis* (Lu, Y. (92) 23)

Copper
Biosorption; *Pseudomonas*; Cadmium; Zinc; Nickel (Savvaidis, I. (92) 181)

Core-sequence
Peptide synthetase; Domain structure; Oligonucleotide; Surfactin; *Bacillus subtilis* (Borchert, S. (92) 175)

Culture conditions
Trichoderma reesei; 1,4-β-Glucan glucanohydrolase (Sprey, B. (92) 253)

Cyanobacterium
Cell wall; Hopanoid; Outer membrane; *Synechocystis*; Thylakoid membrane (Jürgens, U.J. (92) 285)

Cystic fibrosis
Auxotrophy; *Pseudomonas aeruginosa* (Taylor, R.F.H. (92) 243)

Cytochrome
Acidophile; *Thiobacillus ferrooxidans*; Ferrous ion oxidation; Rusticyanin (Mansch, R. (92) 83)

Cytochrome P450
Thermophilic bacillus; Steroid transformation; 6α-Hydroxyprogesterone; 6β-Hydroxyprogesterone; 20α-Dihydroprogesterone; 20β-Dihydroprogesterone (Smith, K.E. (92) 29)

Degradation
Gallium citrate; Phosphate; Iron; *Pseudomonas fluorescens* (Al-Aoukaty, A. (92) 265)

Denitrification
Flexibacter canadensis; Nitrous oxide reductase; Membrane-bound enzyme (Jones, A.M. (92) 205)

Desulfonation
2-Sulfobenzoate mineralization; 2,3-Dihydroxybenzoate; *meta*-Cleavage; *Pseudomonas* sp. RW611 (Hansen, C. (92) 35)

20α-Dihydroprogesterone
Thermophilic bacillus; Steroid transformation; 6α-Hydroxyprogesterone; 6β-Hydroxyprogesterone; 20β-Dihydroprogesterone; Cytochrome P450 (Smith, K.E. (92) 29)

20β-Dihydroprogesterone
Thermophilic bacillus; Steroid transformation; 6α-Hydroxyprogesterone; 6β-Hydroxyprogesterone; 20α-Dihydroprogesterone; Cytochrome P450 (Smith, K.E. (92) 29)

Dihydroubiquinone-9
Aureobasidium pullulans (Takizawa, K. (92) 129)

2,3-Dihydroxybenzoate
2-Sulfobenzoate mineralization; Desulfonation; *meta*-Cleavage; *Pseudomonas* sp. RW611 (Hansen, C. (92) 35)

Dimethyl sulphoxide
Polymerase chain reaction; Tetramethylammonium chloride; *Propionibacterium* (Riedel, K.-H.J. (92) 69)

DNA alteration
Shigella virulence; *virF*-positive regulator; Virulence plasmid; Colony variant (Ming-Shan, Q. (92) 217)

DNA sequence
Aspergillus fumigatus; Protease; Secretion; Alkaline protease (EC 3.4.1.14); Gene, *alp* (Jaton-Ogay, K. (92) 163)

Domain structure
Peptide synthetase; Core-sequence; Oligonucleotide; Surfactin; *Bacillus subtilis* (Borchert, S. (92) 175)

Electroporation
Serpula hyodysenteriae; Mutant; Swine dysentery; Virulence factor (Ter Huurne, A.A.H.M. (92) 109)

Endosymbiosis
Methanobacterium formicicum; *Psalteriomonas lanterna*; Monoxenic culture (Broers, C.A.M. (92) 115)

Enterobacter cloacae
β-Lactamase; Mutagenesis; Polymerase chain reaction; Minimal Inhibitory Concentration; *Escherichia coli* (Jacobs, C. (92) 95)

Enterobacteriaceae
SHV-type penicillinase; Ceftazidime; Hyperproduction (Petit, A. (92) 89)

Escherichia coli
β-Lactamase; Mutagenesis; Polymerase chain reaction; Minimal Inhibitory Concentration; *Enterobacter cloacae* (Jacobs, C. (92) 95)

Expression vector system
Porphyromonas bacteroides; *Bacteroides gingivalis*; Periodontopathogen; Major surface protein; Gene cloning; Gene expression (Watanabe, K.-i. (92) 47)

Fatty acid
Lipopolysaccharide; *Pasteurella haemolytica*; Monosaccharide; Sialic acid (Utley, S.R. (92) 211)

Ferrous ion oxidation
Acidophile; *Thiobacillus ferrooxidans*; Cytochrome; Rusticyanin (Mansch, R. (92) 83)

Flexibacter canadensis
Nitrous oxide reductase; Membrane-bound enzyme; Denitrification (Jones, A.M. (92) 205)

Folding of pro-enzyme
Aqualysin I; *Thermus* protease; Prosequence function; Molecular chaperon (Lee, Y.-C. (92) 73)

Fungal morphology
Choline transport; *Fusarium graminearum* (Robson, G.D. (92) 247)

Fusarium graminearum
Choline transport; Fungal morphology (Robson, G.D. (92) 247)

β-Galactosidase activity
Glucoamylase genes; *STA10* Repressor gene; Regulatory element; *Saccharomyces cerevisiae* (Claros, M.G. (92) 57)

Gallium citrate
Degradation; Phosphate; Iron; *Pseudomonas fluorescens* (Al-Aoukaty, A. (92) 265)

Gene, *alp*
Aspergillus fumigatus; Protease; DNA sequence; Secretion; Alkaline protease (EC 3.4.1.14) (Jaton-Ogay, K. (92) 163)

Gene cloning
Porphyromonas bacteroides; *Bacteroides gingivalis*; Periodontopathogen; Major surface protein; Gene expression; Expression vector system (Watanabe, K.-i. (92) 47)

Gene duplication
Immunoglobulin receptor; M protein; *Streptococcus pyogenes* (Jeppson, H. (92) 139)

Gene expression
Porphyromonas bacteroides; *Bacteroides gingivalis*; Periodontopathogen; Major surface protein; Gene cloning; Expression vector system (Watanabe, K.-i. (92) 47)

Gene *PCK1*
PEP carboxykinase; Chromosome XI; *Saccharomyces cerevisiae* (Delgado, M.A. (92) 125)

Gene, *ras*
Promoter; Transcriptional initiation site; *Lentinus edodes* (Kajiwara, S. (92) 147)

Gene sequence
Trypanosoma cruzi; 5S Ribosomal RNA; Chromosomal organization (Hernández-Rivas, R. (92) 63)

Gene *vanA*
Vancomycin resistance; Plasmid pHKK100 (Handwerger, S. (92) 11)

Genome analysis
Staphylococcus spp.; Pulsed-field gel electrophoresis (Lina, B. (92) 133)

1,4-β-Glucan glucanohydrolase
Trichoderma reesei; Culture conditions (Sprey, B. (92) 253)

Glucoamylase genes
STA10 Repressor gene; Regulatory element; β-Galactosidase activity; *Saccharomyces cerevisiae* (Claros, M.G. (92) 57)

Glutamyl-tRNA synthetase
Amidotransferase; Mischarging; Protein synthesis; *Streptomyces*; tRNA (Schön, A. (92) 19)

Glyantrypine
Aspergillus clavatus; Anthranilic acid; Alkaloid (Penn, J. (92) 229)

Glycerol accumulation
Zygosaccharomyces rouxii; Respiration-deficient mutant; Salt tolerance (Yagi, T. (92) 289)

G protein
Aspergillus niger; Subcellular fractionation (Mérit, X. (92) 259)

Hopanoid
Cell wall; Cyanobacterium; Outer membrane; *Synechocystis*; Thylakoid membrane (Jürgens, U.J. (92) 285)

***p*-Hydroxyphenyl lactate dehydrogenase**
Trypanosoma cruzi; Tyrosine aminotransferase (Nowicki, C. (92) 119)

6α-Hydroxyprogesterone
Thermophilic bacillus; Steroid transformation; 6β-Hydroxyprogesterone; 20α-Dihydroprogesterone; 20β-Dihydroprogesterone; Cytochrome P450 (Smith, K.E. (92) 29)

6β-Hydroxyprogesterone
Thermophilic bacillus; Steroid transformation; 6α-Hydroxyprogesterone; 20α-Dihydroprogesterone; 20β-Dihydroprogesterone; Cytochrome P450 (Smith, K.E. (92) 29)

Hyperproduction
SHV-type penicillinase; Enterobacteriaceae; Ceftazidime (Petit, A. (92) 89)

IgA1 hinge
Cellulase; Linker sequence; IgA protease; *Cellulomonas fimi*; *Neisseria gonorrhoeae* (Miller, P.B. (92) 199)

IgA protease
Cellulase; Linker sequence; IgA1 hinge; *Cellulomonas fimi*; *Neisseria gonorrhoeae* (Miller, P.B. (92) 199)

Immunoglobulin receptor
M protein; *Streptococcus pyogenes*; Gene duplication (Jeppson, H. (92) 139)

Inactivation
Pachysolen tannophilus; Pentose-fermenting; Repression; D-Xylose (Lee, H. (92) 1)

Iron
Gallium citrate; Degradation; Phosphate; *Pseudomonas fluorescens* (Al-Aoukaty, A. (92) 265)

β-Lactamase
Mutagenesis; Polymerase chain reaction; Minimal Inhibitory Concentration; *Enterobacter cloacae*; *Escherichia coli* (Jacobs, C. (92) 95)

Staphylococcus aureus; Penicillinase-resistant penicillin (PRP); Borderline susceptibility (Massidda, O. (92) 223)

Lactococcus
Phage; Probe; Cheese; Whey (Moineau, S. (92) 169)

Leguminosae lectins
Muramic acid; *N*-acetylmuramic acid; Muramyl-dipeptides; Plant-bacteria interactions (Ayouba, A. (92) 41)

Lentinus edodes
Promoter; Transcriptional initiation site; Gene, *ras* (Kajiwara, S. (92) 147)

Linker sequence
Cellulase; IgA1 hinge; IgA protease; *Cellulomonas fimi*; *Neisseria gonorrhoeae* (Miller, P.B. (92) 199)

Lipopolysaccharide
Pasteurella haemolytica; Monosaccharide; Fatty acid; Sialic acid (Utley, S.R. (92) 211)

Campylobacter hyointestinalis; Outer membrane; Protein (Waterman, S.R. (92) 279)

Lysine biosynthesis
aecA; Aspartokinase II; Control of amino acid biosynthesis; *Bacillus subtilis* (Lu, Y. (92) 23)

Major surface protein
Porphyromonas bacteroides; *Bacteroides gingivalis*; Periodontopathogen; Gene cloning; Gene expression; Expression vector system (Watanabe, K.-i. (92) 47)

Marine bacteria
Tetrodotoxin; Saxitoxin; Tissue culture assay; Sodium channel (Gallacher, S. (92) 101)

Membrane-bound enzyme
Flexibacter canadensis; Nitrous oxide reductase; Denitrification (Jones, A.M. (92) 205)

Methanobacterium formicicum
Endosymbiosis; *Psalteriomonas lanterna*; Monoxenic culture (Broers, C.A.M. (92) 115)

Minimal Inhibitory Concentration
β-Lactamase; Mutagenesis; Polymerase chain reaction; *Enterobacter cloacae*; *Escherichia coli* (Jacobs, C. (92) 95)

Mischarging
Amidotransferase; Glutamyl-tRNA synthetase; Protein synthesis; *Streptomyces*; tRNA (Schön, A. (92) 19)

Molecular chaperon
Aqualysin I; *Thermus* protease; Prosequence function; Folding of pro-enzyme (Lee, Y.-C. (92) 73)

Monosaccharide
Lipopolysaccharide; *Pasteurella haemolytica*; Fatty acid; Sialic acid (Utley, S.R. (92) 211)

Monoxenic culture
Endosymbiosis; *Methanobacterium formicicum*; *Psalteriomonas lanterna* (Broers, C.A.M. (92) 115)

M protein
Immunoglobulin receptor; *Streptococcus pyogenes*; Gene duplication (Jeppson, H. (92) 139)

Muramic acid
Leguminosae lectins; *N*-acetylmuramic acid; Muramyl-dipeptides; Plant-bacteria interactions (Ayouba, A. (92) 41)

Muramyl-dipeptides
Leguminosae lectins; Muramic acid; *N*-acetylmuramic acid; Plant-bacteria interactions (Ayouba, A. (92) 41)

Mutagenesis
β-Lactamase; Polymerase chain reaction; Minimal Inhibitory Concentration; *Enterobacter cloacae*; *Escherichia coli* (Jacobs, C. (92) 95)

Mutant
Serpula hyodysenteriae; Swine dysentery; Virulence factor; Electroporation (Ter Huurne, A.A.H.M. (92) 109)

***N*-acetylmuramic acid**
Leguminosae lectins; Muramic acid; Muramyl-dipeptides; Plant-bacteria interactions (Ayouba, A. (92) 41)

Neisseria gonorrhoeae
Cellulase; Linker sequence; IgA1 hinge; IgA protease; *Cellulomonas fimi* (Miller, P.B. (92) 199)

Nickel
Biosorption; *Pseudomonas*; Copper; Cadmium; Zinc (Savvaidis, I. (92) 181)

Nitrous oxide reductase
Flexibacter canadensis; Membrane-bound enzyme; Denitrification (Jones, A.M. (92) 205)

OHIO-1 β-lactamase
Clavulanic acid; Sulbactam; Tazobactam; β-lactamase inhibitor resistance (Bonomo, R.A. (92) 79)

Oligonucleotide
Peptide synthetase; Domain structure; Core-sequence; Surfactin; *Bacillus subtilis* (Borchert, S. (92) 175)

Outer membrane
Campylobacter hyointestinalis; Protein; Lipopolysaccharide (Waterman, S.R. (92) 279)

Cell wall; Cyanobacterium; Hopanoid; *Synechocystis*; Thylakoid membrane (Jürgens, U.J. (92) 285)

Pachysolen tannophilus
Inactivation; Pentose-fermenting; Repression; D-Xylose (Lee, H. (92) 1)

Pasteurella haemolytica
Lipopolysaccharide; Monosaccharide; Fatty acid; Sialic acid (Utley, S.R. (92) 211)

Penicillinase-resistant penicillin (PRP)
Staphylococcus aureus; Borderline susceptibility; β-Lactamase (Massidda, O. (92) 223)

Pentose-fermenting
Inactivation; *Pachysolen tannophilus*; Repression; D-Xylose (Lee, H. (92) 1)

PEP carboxykinase
Gene *PCK1*; Chromosome XI; *Saccharomyces cerevisiae* (Delgado, M.A. (92) 125)

Peptide synthetase
Domain structure; Core-sequence; Oligonucleotide; Surfactin; *Bacillus subtilis* (Borchert, S. (92) 175)

Periodontopathogen
Porphyromonas bacteroides; *Bacteroides gingivalis*; Major surface protein; Gene cloning; Gene expression; Expression vector system (Watanabe, K.-i. (92) 47)

Phage
Lactococcus; Probe; Cheese; Whey (Moineau, S. (92) 169)

Phanerochaete chrysosporium
Avicel; Cellobiose oxidase; Cellulose (Kremer, S.M. (92) 187)

Phosphatase
Polyphosphate; Phosphate starvation; *Schizosaccharomyces pombe* (Müller, J. (92) 151)

Phosphate
Gallium citrate; Degradation; Iron; *Pseudomonas fluorescens* (Al-Aoukaty, A. (92) 265)

Phosphate starvation
Polyphosphate; Phosphatase; *Schizosaccharomyces pombe* (Müller, J. (92) 151)

Plant-bacteria interactions
Leguminosae lectins; Muramic acid; *N*-acetylmuramic acid; Muramyl-dipeptides (Ayouba, A. (92) 41)

Plasmid pHKK100
Gene *vanA*; Vancomycin resistance (Handwerger, S. (92) 11)

Polymerase chain reaction
Clostridium difficile; Pseudomembranous colitis; Typing (McMillin, D.E. (92) 5)

Tetramethylammonium chloride; Dimethyl sulphoxide; *Propionibacterium* (Riedel, K.-H.J. (92) 69)

β-Lactamase; Mutagenesis; Minimal Inhibitory Concentration; *Enterobacter cloacae*; *Escherichia coli* (Jacobs, C. (92) 95)

Polyphosphate
Phosphate starvation; Phosphatase; *Schizosaccharomyces pombe* (Müller, J. (92) 151)

Porphyromonas bacteroides
Bacteroides gingivalis; Periodontopathogen; Major surface protein; Gene cloning; Gene expression; Expression vector system (Watanabe, K.-i. (92) 47)

Porphyromonas gingivalis
Protease; Cloning (Park, Y. (92) 273)

Probe
Lactococcus; Phage; Cheese; Whey (Moineau, S. (92) 169)

Promoter
Transcriptional initiation site; Gene, *ras*; *Lentinus edodes* (Kajiwara, S. (92) 147)

Propionibacterium
Polymerase chain reaction; Tetramethylammonium chloride; Dimethyl sulphoxide (Riedel, K.-H.J. (92) 69)

Prosequence function
Aqualysin I; *Thermus* protease; Folding of pro-enzyme; Molecular chaperon (Lee, Y.-C. (92) 73)

Protease
Aspergillus fumigatus; DNA sequence; Secretion; Alkaline protease (EC 3.4.1.14); Gene, *alp* (Jaton-Ogay, K. (92) 163)

Porphyromonas gingivalis; Cloning (Park, Y. (92) 273)

Protein
Campylobacter hyointestinalis; Outer membrane; Lipopolysaccharide (Waterman, S.R. (92) 279)

Protein synthesis
Amidotransferase; Mischarging; Glutamyl-tRNA synthetase; *Streptomyces*; tRNA (Schön, A. (92) 19)

Psalteriomonas lanterna
Endosymbiosis; *Methanobacterium formicicum*; Monoxenic culture (Broers, C.A.M. (92) 115)

Pseudomembranous colitis
Clostridium difficile; Polymerase chain reaction; Typing (McMillin, D.E. (92) 5)

Pseudomonas
Biosorption; Copper; Cadmium; Zinc; Nickel (Savvaidis, I. (92) 181)

Pseudomonas aeruginosa
Biofilm; Chemostat; Serum sensitivity (Anwar, H. (92) 235)

Auxotrophy; Cystic fibrosis (Taylor, R.F.H. (92) 243)

Pseudomonas fluorescens
Gallium citrate; Degradation; Phosphate; Iron (Al-Aoukaty, A. (92) 265)

***Pseudomonas* sp. RW611**
2-Sulfobenzoate mineralization; Desulfonation; 2,3-Dihydroxybenzoate; *meta*-Cleavage (Hansen, C. (92) 35)

Pulsed-field gel electrophoresis
Genome analysis; *Staphylococcus* spp. (Lina, B. (92) 133)

Regulatory element
Glucoamylase genes; *STA10* Repressor gene; β-Galactosidase activity; *Saccharomyces cerevisiae* (Claros, M.G. (92) 57)

Repression
Inactivation; *Pachysolen tannophilus*; Pentose-fermenting; D-Xylose (Lee, H. (92) 1)

Respiration-deficient mutant
Zygosaccharomyces rouxii; Salt tolerance; Glycerol accumulation (Yagi, T. (92) 289)

tRNA
Amidotransferase; Mischarging; Glutamyl-tRNA synthetase; Protein synthesis; *Streptomyces* (Schön, A. (92) 19)

Rusticyanin
Acidophile; *Thiobacillus ferrooxidans*; Ferrous ion oxidation; Cytochrome (Mansch, R. (92) 83)

Saccharomyces cerevisiae
Glucoamylase genes; *STA10* Repressor gene; Regulatory element; β-Galactosidase activity (Claros, M.G. (92) 57)

Gene *PCK1*; PEP carboxykinase; Chromosome XI (Delgado, M.A. (92) 125)

Saliva
Amylase; Streptococci; Starch (Douglas, C.W.I. (92) 193)

Salt tolerance
Zygosaccharomyces rouxii; Respiration-deficient mutant; Glycerol accumulation (Yagi, T. (92) 289)

Saxitoxin
Tetrodotoxin; Tissue culture assay; Sodium channel; Marine bacteria (Gallacher, S. (92) 101)

Schizosaccharomyces pombe
Polyphosphate; Phosphate starvation; Phosphatase (Müller, J. (92) 151)

Secretion
Aspergillus fumigatus; Protease; DNA sequence; Alkaline protease (EC 3.4.1.14); Gene, *alp* (Jaton-Ogay, K. (92) 163)

Serpula hyodysenteriae
Mutant; Swine dysentery; Virulence factor; Electroporation (Ter Huurne, A.A.H.M. (92) 109)

Serum sensitivity
Pseudomonas aeruginosa; Biofilm; Chemostat (Anwar, H. (92) 235)

***Shigella* virulence**
virF-positive regulator; Virulence plasmid; Colony variant; DNA alteration (Ming-Shan, Q. (92) 217)

SHV-type penicillinase
Enterobacteriaceae; Ceftazidime; Hyperproduction (Petit, A. (92) 89)

Sialic acid
Lipopolysaccharide; *Pasteurella haemolytica*; Monosaccharide; Fatty acid (Utley, S.R. (92) 211)

Sodium channel
Tetrodotoxin; Saxitoxin; Tissue culture assay; Marine bacteria (Gallacher, S. (92) 101)

5S Ribosomal RNA
Trypanosoma cruzi; Chromosomal organization; Gene sequence (Hernández-Rivas, R. (92) 63)

Staphylococcus aureus
Penicillinase-resistant penicillin (PRP); Borderline susceptibility; β-Lactamase (Massidda, O. (92) 223)

***Staphylococcus* spp.**
Genome analysis; Pulsed-field gel electrophoresis (Lina, B. (92) 133)

Starch
Amylase; Streptococci; Saliva (Douglas, C.W.I. (92) 193)

***STA10* Repressor gene**
Glucoamylase genes; Regulatory element; β-Galactosidase activity; *Saccharomyces cerevisiae* (Claros, M.G. (92) 57)

Steroid transformation
Thermophilic bacillus; 6α-Hydroxyprogesterone; 6β-Hydroxyprogesterone; 20α-Dihydroprogesterone; 20β-Dihydroprogesterone; Cytochrome P450 (Smith, K.E. (92) 29)

Streptococci
Amylase; Saliva; Starch (Douglas, C.W.I. (92) 193)

Streptococcus pyogenes
Immunoglobulin receptor; M protein; Gene duplication (Jeppson, H. (92) 139)

Streptomyces
Amidotransferase; Mischarging; Glutamyl-tRNA synthetase; Protein synthesis; tRNA (Schön, A. (92) 19)

Subcellular fractionation
Aspergillus niger; G protein (Mérit, X. (92) 259)

Sulbactam
OHIO-1 β-lactamase; Clavulanic acid; Tazobactam; β-lactamase inhibitor resistance (Bonomo, R.A. (92) 79)

2-Sulfobenzoate mineralization
Desulfonation; 2,3-Dihydroxybenzoate; *meta*-Cleavage; *Pseudomonas* sp. RW611 (Hansen, C. (92) 35)

Surfactin
Peptide synthetase; Domain structure; Core-sequence; Oligonucleotide; *Bacillus subtilis* (Borchert, S. (92) 175)

Swine dysentery
Serpula hyodysenteriae; Mutant; Virulence factor; Electroporation (Ter Huurne, A.A.H.M. (92) 109)

Synechocystis
Cell wall; Cyanobacterium; Hopanoid; Outer membrane; Thylakoid membrane (Jürgens, U.J. (92) 285)

Tazobactam
OHIO-1 β-lactamase; Clavulanic acid; Sulbactam; β-lactamase inhibitor resistance (Bonomo, R.A. (92) 79)

TDH-related hemolysin
Vibrio parahaemolyticus Vp-TRH (Yoh, M. (92) 157)

Tetramethylammonium chloride
Polymerase chain reaction; Dimethyl sulphoxide; *Propionibacterium* (Riedel, K.-H.J. (92) 69)

Tetrodotoxin
Saxitoxin; Tissue culture assay; Sodium channel; Marine bacteria (Gallacher, S. (92) 101)

Thermophilic bacillus
Steroid transformation; 6α-Hydroxyprogesterone; 6β-Hydroxyprogesterone; 20α-Dihydroprogesterone; 20β-Dihydroprogesterone; Cytochrome P450 (Smith, K.E. (92) 29)

***Thermus* protease**
Aqualysin I; Prosequence function; Folding of pro-enzyme; Molecular chaperon (Lee, Y.-C. (92) 73)

Thiobacillus ferrooxidans
Acidophile; Ferrous ion oxidation; Cytochrome; Rusticyanin (Mansch, R. (92) 83)

Thylakoid membrane
Cell wall; Cyanobacterium; Hopanoid; Outer membrane; *Synechocystis* (Jürgens, U.J. (92) 285)

Tissue culture assay
Tetrodotoxin; Saxitoxin; Sodium channel; Marine bacteria (Gallacher, S. (92) 101)

Transcriptional initiation site
Promoter; Gene, *ras*; *Lentinus edodes* (Kajiwara, S. (92) 147)

Trichoderma reesei
1,4-β-Glucan glucanohydrolase; Culture conditions (Sprey, B. (92) 253)

Trypanosoma cruzi
5S Ribosomal RNA; Chromosomal organization; Gene sequence (Hernández-Rivas, R. (92) 63)

p-Hydroxyphenyl lactate dehydrogenase; Tyrosine aminotransferase (Nowicki, C. (92) 119)

Typing
Clostridium difficile; Polymerase chain reaction; Pseudomembranous colitis (McMillin, D.E. (92) 5)

Tyrosine aminotransferase
Trypanosoma cruzi; *p*-Hydroxyphenyl lactate dehydrogenase (Nowicki, C. (92) 119)

Vancomycin resistance
Gene *vanA*; Plasmid pHKK100 (Handwerger, S. (92) 11)

***Vibrio parahaemolyticus* Vp-TRH**
TDH-related hemolysin (Yoh, M. (92) 157)

***virF*-positive regulator**
Shigella virulence; Virulence plasmid; Colony variant; DNA alteration (Ming-Shan, Q. (92) 217)

Virulence factor
Serpula hyodysenteriae; Mutant; Swine dysentery; Electroporation (Ter Huurne, A.A.H.M. (92) 109)

Virulence plasmid
Shigella virulence; *virF*-positive regulator; Colony variant; DNA alteration (Ming-Shan, Q. (92) 217)

Whey
Lactococcus; Phage; Probe; Cheese (Moineau, S. (92) 169)

D-Xylose
Inactivation; *Pachysolen tannophilus*; Pentose-fermenting; Repression (Lee, H. (92) 1)

Zinc
Biosorption; *Pseudomonas*; Copper; Cadmium; Nickel (Savvaidis, I. (92) 181)

Zygosaccharomyces rouxii
Respiration-deficient mutant; Salt tolerance; Glycerol accumulation (Yagi, T. (92) 289)